REMARKS

In the office action mailed on May 4, 2004, claims 1-2 and 5 of the above-referenced application are rejected under 35 U.S.C. § 102(e) as allegedly being anticpated by U.S. Patent No. 6,556,210 to Yamamoto ("the '210 Patent"). Claims 3 and 4 of the above-referenced application are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over the '210 Patent in view of U.S. Patent No. 6,317,137 to Rosasco. Applicants respectfully traverse this rejection.

The present invention is directed to systems and methods for mapping optical texture information into a monochrome image data. This process is described in the application, for example from page 51, paragraph 125, through page 53, paragraph 132, and in the flow chart of Figure 20. An example of the present invention is the mapping of a texture model acquired from color images acquired during conventional optical colonoscopy to monochrome image data of a colon, such as CT image data. As set forth in Claim 1, the method includes segmenting the monochrome data set to acquire a first set of textures, segmenting the color optical image data into color classifications representative of a second set of textures, generating a texture model for the color classifications and matching the texture models to the first set of textures. This process provides for enhanced visualization of monochrome image data, such as CT data, to provide the user with a more realistic visualization of an object.

Rejections Under 35 U.S.C. §102(e):

U.S. Patent No. 6,556,210 to Yamamoto ("the '210 Patent") is directed to a method and apparatus for generating two-dimensional (see Fig. 13) mosaic images from original images. Yamamoto does not disclose mapping texture properties from at least one optical image to an acquired monochrome data set. The Examiner cites the abstract and column 2, lines 43-45 as allegedly disclosing acquired monochrome data. In this section of the '210 patent, only an original monochrome image is mentioned. The '210 patent's monochrome image is used to produce a mosaic. The mosaic itself is actually made from colored images to express the characteristics of the original monochrome image. (See column 2, lines 43-44). It does not map texture properties from at least one optical image to an acquired monochrome data set.

Moreover, the '210 patent does not disclose generating a texture model, matching texture models or applying the texture models to the monochrome image data. It simply discloses comparing space parameters of an original image's tile area with a texture image.

Thus, the '210 patent does not teach each and every element of claims 1-2 and 5 of the present invention.

Furthermore, the provisional U.S. Application No. 60/125,041, to which the present application claims priority and which was filed on March 18, 1999, antedates the May 28, 1999 filing date of the '210 patent thereby eliminating that document as a proper §103(a) reference.

Applicant requests that the rejections under 35 U.S.C. § 102 (e) be withdrawn for at least these reasons.

Rejections Under 35 U.S.C. §103(a):

U.S. Patent No. 6,317,137 to Rosasco ("the '137 Patent") is directed to a method, system and computer program product for multi-threaded texture modulation in axis-aligned volume rendering. The '137 patent discloses modulating texture in scanned images including MRI and CT scans.

There is no suggestion or motivation to modify the '210 patent to include images from MRI and CT scans. In fact, the '210 patent is directed to producing mosaic patterns or photographic images. There is no suggestion or motivation in the '210 patent for producing medical images or for application in the medical field. Additionally, the mosaic-like images of the '210 patent are two-dimensional. This teaches away from the volumetric (three-dimensional) images of the '137 patent.

Moreover, neither the '210 patent nor the '137 patent disclose or suggest mapping texture features from optical image data to a monochrome image dataset, generating a texture model, matching texture models or applying the texture models to the monochrome image data. It simply discloses comparing space parameters of an original image's tile area with a texture image. It is respectfully submitted that a *prima facie* showing of obviousness against the pending claims cannot be sustained based on the '210 patent and '137 patent.

Furthermore, the provisional U.S. Application No. 60/125,041, to which the present application claims priority and which was filed on March 18, 1999, antedates the May 28, 1999 filing date of the '210 patent thereby eliminating that document as a proper §103(a) reference.

Applicants respectfully submit that pending claims 1-5 are patentable and in condition for allowance. Reconsideration of the rejections to claims 1-5 and allowance of such claims in view of the remarks set forth above is respectfully solicited.

Respectfully submitted,

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